ABSTRACT

An apparatus for enhancing the control response of EGR recirculation rate. For EGR control, this apparatus contains a throttle valve for controlling the opening of an engine air intake passage (i.e. throttle valve for EGR control), and an EGR valve for controlling the flow rate of the exhaust gas recirculated into the air intake passage.

The apparatus also includes a first air intake body containing the throttle valve, drive motor thereof and reduction gear mechanism, and a second air intake body containing the EGR valve, drive motor thereof and reduction gear mechanism. The first and second air intake bodies are connected with each other to form an integral assembly and are equipped with the first and second covers for protecting the respective reduction gear mechanisms. At least a circuit board for controlling the drive of the reference value is incorporated in at least one of said covers. The circuit board can be equipped with a circuit for controlling the drive of the EGR valve, in addition to the throttle valve.